U.S. HIGH PRODUCTION VOLUME (HPV)

CHEMICAL CHALLENGE PROGRAM

ROBUST SUMMARY

4-Nitro-N-Methylphthalimide (CAS RN 41663-84-7)

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CHEMICAL IDENTITY AND USE INFORMATION

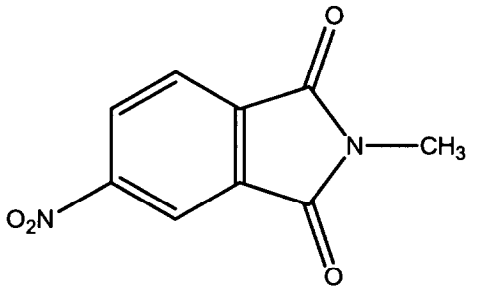
CAS RN:

41663-84-7

CHEMICAL NAME:

4-Nitro-N-Methylphthalimide

STRUCTURE, MOLECULAR WEIGHT, FORMULA:



Molecular Formula: $C_9H_6N_2O_4$
Molecular Wt.: 206.16

OTHER CHEMICAL IDENTITY INFORMATION

1H-Isoindole-1,3(2H)-dione, 2-methyl-5-nitro-
N-Methyl-4-nitrophthalimide

USE PATTERN

4-Nitro-N-methylphthalimide (4-NPI) is primarily a site-limited intermediate made at a single location in the United States. Greater than 99.95% of the 4-NPI produced is used as a reactive intermediate to make high molecular weight polyetherimide polymers. The remaining fraction of produced 4-NPI (approximately 0.05%) is sold as a reactive intermediate to make a non-food contact industrial adhesive. 4-NPI is manufactured in two forms; a 0.3% slurry and a 30-60% wet cake.

FINAL TEST STATUS

4-NITRO-N-METHYLPHTHALIMIDE CAS RN: 41663-84-7		Information	OECD Study	GLP	Other Study	Estimation Method	Acceptable	Testing Required
STUDY		Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
PHYSICAL AND CHEMICAL DATA								
1.0	Melting Point	Y	Y	Y	N	N	Y	N
2.0	Boiling Point	Y	Y	Y	N	N	Y	N
3.0	Vapor Pressure	Y	N	N	Y	Y	Y	N
4.0	Partition Coefficient	Y	N	N	Y	Y	Y	N
5.0	Water Solubility	Y	N	N	Y	Y	Y	N
ENVIRONMENTAL FATE AND PATHWAY								
6.0	Photodegradation	Y	N	N	Y	Y	Y	N
7.0	Stability in Water	Y	N	N	Y	Y	Y	N
8.0	Transport and Distribution	Y	N	N	Y	Y	Y	N
9.0	Biodegradation	Y	Y	Y	N	N	Y	N
ECOTOXICITY								
10.0	Acute Toxicity to Fish	Y	Y	Y	N	N	Y	N
11.0	Toxicity to Algae	Y	Y	Y	N	N	Y	N
12.0	Acute Toxicity to Daphnia	Y	Y	Y	N	N	Y	N
TOXICITY								
13.0	Acute Toxicity	Y	N	Y	N	N	Y	N
14.0	Genotoxicity *In Vitro or In Vivo* (Chromosome Aberration Tests)	Y	N	Y	Y	N	Y	N
15.1	Genotoxicity *In Vitro* (Bacterial Test)	Y	N	Y	Y	N	Y	N
15.2	Genotoxicity *In Vitro* (Mammalian Cells)	Y	N	Y	Y	N	Y	N
16.0	Repeated Dose Toxicity	Y	N	Y	Y	N	Y	N
17.0	Reproductive Toxicity	Y	Y	Y	N	N	Y	N
18.0	Development Toxicity / Teratogenicity	Y	N	Y	Y	N	Y	N